AMENDMENTS

In the claims:

1. (Previously Presented) A method of treating a subject for a condition caused by an autonomic nervous system abnormality, said method comprising:

providing a subject known to suffer from an autonomic nervous system abnormality; and

administering to said subject an effective amount of at least one beta-blocker to produce a parasympathetic activity/sympathetic activity ratio in at least a portion of said subject's autonomic nervous system that is analogous to the parasympathetic activity/sympathetic activity ratio observed in a healthy 25 year old human subject to treat said subject for said autonomic nervous system abnormality, wherein said autonomic nervous system abnormality is selected from the group consisting of: neurodegenerative conditions; neuroinflammatory conditions; orthopedic inflammatory conditions; lymphoproliferative conditions; autoimmune conditions; inflammatory conditions; infectious diseases, pulmonary conditions; transplant-related conditions, gastrointestinal conditions; endocrine conditions; genitourinary conditions selected from the group of renal failure, hyperreninemia, hepatorenal syndrome and pulmonary renal syndrome; aging associated conditions; neurologic conditions; Th-2 dominant conditions; conditions that cause hypoxia; conditions that cause hypercarbia; conditions that cause hypercapnia; conditions that cause acidosis; conditions that cause acidemia, pediatric-related conditions; OB-GYN conditions, sudden death syndromes, fibrosis; post-operative recovery conditions; post-procedural recovery conditions; chronic pain; disorders of thermoregulation, cyclic vomiting syndrome and trauma.

2. (Canceled)

3. (Previously Presented) The method of Claim 1, wherein said abnormality is characterized by a sympathetic bias.

4. (Previously Presented) The method of Claim 1, wherein said abnormality is characterized by a parasympathetic bias.

5-10. (Canceled)

11. (Original) The method of Claim 1, wherein said abnormality is characterized by an abnormally high parasympathetic activity.

12. (Original) The method of Claim 11, wherein said abnormality is characterized by an abnormally low sympathetic activity.

13. (Original) The method of Claim 11, wherein said abnormality is characterized by normal sympathetic activity.

14. (Original) The method of Claim 11, wherein said abnormality is characterized by an abnormally high sympathetic activity.

15. (Original) The method of Claim 11, further comprising decreasing said abnormally high parasympathetic activity.

16. (Original) The method of Claim 1, wherein said abnormality comprises an abnormally low parasympathetic activity.

17. (Original) The method of Claim 16, wherein said abnormality comprises an abnormally low sympathetic activity.

18. (Original) The method of Claim 16, wherein said abnormality comprises normal sympathetic activity.

19. (Original) The method of Claim 16, wherein said abnormality comprises an abnormally high sympathetic activity.

20. (Previously Presented) The method of Claim 4, further comprising increasing said parasympathetic activity.

21. (Original) The method of Claim 1, wherein said at least one beta-blocker is chosen from atenolol, betaxolol, bisoprolol, carvedilol, esmolol, labetalol, metoprolol, nadolol, pindolol, propranolol, sotalol, timolol, acebutalol, oxprenolol, carvedilol, and entbutolol.

22. (Original) The method of Claim 1, wherein said method comprises increasing the parasympathetic activity/sympathetic activity ratio in at least a portion of said subject's autonomic nervous system.

23. (Original) The method of Claim 1, further comprising administering an effective amount of at least one non-beta-blocker agent.

24. (Original) The method of Claim 23, wherein said at least one non-beta-blocker agent is chosen from aldosterone antagonists; angiotensin II receptor blockades; angiotensin converting enzyme inhibitors; statins; triglycerides lowering drugs; niacin; anti-diabetes agents; immunomodulators; nicotine; sympathomimetics; cholinergics; acetylcholinesterase inhibitors; magnesium and magnesium sulfates, calcium channel blockers; muscarinics; sodium channel blockers; glucocorticoid receptor blockers; peripheral andrenergic inhibitors; blood vessel dilators; central agonists; combined alpha and beta-blockers; alpha blockers; combination diuretics; potassium sparing diuretics; nitrates; cyclic nucleotide monophosphodiesterase inhibitors; alcohols; catecholamines inhibitors; analgesics; neurotoxins; vasopressin inhibitors; oxytocin inhibitors; alcohol; relaxin hormone; renin inhibitors; estrogen; estrogen analogues; estrogen metabolites;

progesterone inhibitors; testosterone inhibitors; gonadotropin-releasing hormone analogues; gonadotropin-releasing hormone inhibitors; vesicular monoamine transport inhibitors; dipeptidyl peptidase IV inhibitors; antihistamines and melatonin.

25. (Original) The method of Claim 23, wherein said at least one beta-blocker and at least one non-beta-blocker are concomitantly administered in unit dosage form.

26. (Original) The method of Claim 1, further comprising stimulating at least a portion of said subject's autonomic nervous system.

27. (Original) The method of Claim 26, wherein said stimulating comprises contacting at least a portion of said subject's autonomic nervous system with at least one electrode and applying electrical energy to at least a portion of said subject's autonomic nervous system.

28. (Original) The method of claim 1 wherein said at least one beta-blocker is administered orally at least once a day to said subject.

29. (Withdrawn) The method of Claim 1, wherein said condition is a neurodegenerative condition chosen from the group of: Alzheimer's disease, Pick's disease, dementia, delirium and amyotrophic lateral sclerosis.

30. (Withdrawn) The method of Claim 1, wherein said condition is a neuroinflammatory condition chosen from the group of: viral meningitis, viral encephalitis, fungal meningitis, fungal encephalitis, multiple sclerosis, charcot joint and myasthenia gravis.

31. (Withdrawn) The method of Claim 1, wherein said condition is an orthopedic inflammatory condition chosen from the group of: osteoarthritis,

inflammatory arthritis, regional idiopathic osteoporosis, reflex sympathetic dystrophy, Paget's disease and osteoporosis.

32. (Withdrawn) The method of Claim 1, wherein said condition is a lymphoproliferative condition chosen from the group of: lymphoma, lymphoproliferative disease, Hodgkin's disease and inflammatory pseudomotor of the liver.

33. (Withdrawn) The method of Claim 1, wherein said condition is an autoimmune condition chosen from the group of: Graves disease, hashimoto's, takayasu's disease, kawasaki's diseases, arteritis, scleroderma, CREST syndrome, allergies, dermatitis, Henoch-schlonlein purpura, goodpasture syndrome, autoimmune thyroiditis, myasthenia gravis, Reiter's disease, raynaud's, and lupus.

34. (Withdrawn) The method of Claim 1, wherein said condition is an inflammatory condition chosen from the group of: acute respiratory distress syndrome, multiple sclerosis, juvenile rheumatoid arthritis, juvenile chronic arthritis and rheumatoid arthritis.

35. (Withdrawn) The method of Claim 1, wherein said condition is an infectious disease chosen from the group: sepsis, viral and fungal infections, diseases of wound healing, wound healing, tuberculosis, infection, acquired immune deficiency syndrome and human immunodeficiency virus.

36. (Withdrawn) The method of Claim 1, wherein said condition is a pulmonary condition chosen from the group of: tachypnea, fibrotic lung diseases such as cystic fibrosis and the like, interstitial lung disease, desquamative interstitial pneumonitis, non-specific interstitial pneumonitis, lymphocytic interstitial pneumonitis, usual interstitial pneumonitis, idiopathic pulmonary fibrosis,

pulmonary edema, aspiration, asphyxiation, pneumothorax, right-to-left shunts, left-to-right shunts and respiratory failure.

37. (Withdrawn) The method of Claim 1, wherein said condition is a transplant-related condition chosen from the group of: transplant rejection, transplant-related tachycardia, transplant related renal failure, transplant related bowel dysmotility and transplant-related hyperreninemia.

38. (Withdrawn) The method of Claim 1, wherein said condition is a gastrointestinal condition chosen from the group of: hepatitis, xerostomia, bowel mobility, peptic ulcer disease, constipation, ileus, irritable bowel syndrome, post-operative bowel dysmotility, inflammatory bowel disease and typhilitis.

39. (Withdrawn) The method of Claim 1, wherein said condition is an endocrine condition chosen from the group of: hypothyroidism, hyperglycemia, diabetes, obesity, syndrome X, insulin resistance and polycycstic ovarian syndrome.

40. (Withdrawn) The method of Claim 1, wherein said condition is a skin condition chosen from the group of: wrinkles, cutaneous vasculitis and psoriasis.

41. (Original) The method of Claim 1, wherein said condition is an aging associated condition chosen from the group of: shy dragers, multi-system atrophy, age related inflammation conditions, and cancer.

42.-50. (Canceled)

51. (Withdrawn) The method of Claim 1, wherein said condition is a post-procedural recovery condition chosen from the group of: post- procedural pain, post procedural ileus, post- procedural fever and post- procedural nausea.

52. (Withdrawn) The method of Claim 1, wherein said condition is chronic pain.

53.- 56. (Canceled)

57. (Withdrawn) A system comprising:

(a) an algorithm for administering said at least one beta-blocker to said subject in accordance with method of Claim 1 recorded on a computer-readable medium

(b) a pharmaceutically effective amount of at least one beta-blocker, and

(c) a drug delivery device.

58-61. (Canceled)

62. (Previously Presented) The method of Claim 1, wherein said treating is for a period of at least 24 hours.

63. (Previously Presented) The method of Claim 1, wherein said method further comprises increasing parasympathetic activity.

64. (Previously Presented) The method of Claim 1, wherein said method further comprises employing a control feedback loop.

65. (Previously Presented) The method of Claim 64, wherein said control feedback loop maintains the desired state of said parasympathetic activity/sympathetic activity ratio that is analogous to the parasympathetic activity/sympathetic activity ratio observed in a healthy 25 year old human subject in at least a portion of said autonomic nervous system, such that said modulating is repeated one or more times.

66. (Previously Presented) The method of Claim 65, wherein said modulating comprises repeating the same beta-blocker protocol.

67. (Previously Presented) The method of Claim 65, wherein said modulating comprises administering at least two different beta-blocker protocols.

68. (Previously Presented) The method of Claim 67, where the difference in said beta-blocker protocols comprises a difference in dose.

69. (Previously Presented) The method of Claim 1, wherein the method further comprises identifying a subject known to suffer from an autonomic nervous system abnormality.

70. (Previously Presented) The method of Claim 1, wherein said method further comprises determining said parasympathetic activity/sympathetic activity ratio in at least a portion of said subject's autonomic nervous system.

71. (Previously Presented) The method of Claim 70, wherein said method further comprises administering an effective amount of at least one beta-blocker to said subject in response to said determined parasympathetic activity/sympathetic activity ratio.

Please add the following new claims:

72. (New) The method of Claim 21, wherein said beta-blocker is propranolol.

73. (New) The method of Claim 71, wherein said beta-blocker is propranolol.

74. (New) The method of Claim 23, wherein said non-beta-blocker is an NSAID.

75. (New) The method of Claim 25, wherein said beta-blocker is propranolol and said non-beta-blocker is an NSAID.

76. (New) The method of Claim 1, wherein said autonomic nervous system abnormality is an aging associated condition.

77. (New) The method of Claim 76, wherein said aging associated condition is loss of parasympathetic function.

78. (New) A method of treating a subject for a condition caused by an autonomic nervous system abnormality, said method comprising:

providing a subject known to suffer from aging associated loss of parasympathetic function; and

administering to said subject an effective amount of at least one beta blocker to produce a parasympathetic activity/sympathetic activity ratio in at least a portion of said subject's autonomic nervous system that is analogous to the parasympathetic activity/sympathetic activity ratio observed in a healthy 25 year old human subject to treat said subject for said aging associated loss of parasympathetic function.

79. (New) The method of Claim 78, wherein said beta blocker is propranolol.

80. (New) The method of Claim 78, wherein said method further comprises determining said parasympathetic activity/sympathetic activity ratio in at least a portion of said subject's autonomic nervous system.

81. (New) The method of Claim 80, wherein said method further comprises administering an effective amount of at least one beta-blocker to said subject in response to said determined parasympathetic activity/sympathetic activity ratio.

82. (New) The method of Claim 78, further comprising administering an effective amount of at least one non-beta-blocker agent.

83. (New) The method of Claim 82, wherein said non-beta-blocker is an NSAID.

84. (New) The method of Claim 83, wherein said propranolol and said NSAID are concomitantly administered in unit dosage form.